REMARKS

Please charge any required fees to our deposit account number 500687 to have this Response and Amendment entered.

Reconsideration and allowance are respectfully requested.

Claims 1-42 are pending. Applicant gratefully acknowledges the allowance of claims 33-36. Basis for the amendment of claims 1, 9, 17, 25 and 37 can be found in the original application including at page 6, lines 3-10 and pending claim 3. Applicant respectfully submits that no new issues have been added. The claims have been amended as suggested by the Examiner. No new matter has been entered.

The rejections under Sections 102 and 103 are respectfully traversed. The claimed invention is not anticipated by, or unpatentable over, U.S. Patent No. 5,9494910 (Go) either alone or in combination with any of U.S. Publication No. 20010040997 (Tsap), U.S. Patent No. 6,801,665 (Atsumi), U.S. Patent No. 5,991,515 (Fall), U.S. Patent No. 5,490,221 (Ransford), U.S. Patent 6,499,350 (Board) and newly cited U.S. Publication No. 2001/0016061 (Shimoda) for the reasons of record and the following reasons.

The Examiner asserts that the limitation "automatically adjusted between high fidelity and low fidelity based on the rate of change of the variable" is not specifically claimed. See page 2, paragraph 2(I) and page 4, paragraph 2(III) of the 1 December 2009 Final Office Action. Applicant respectfully submits that the original claim language interpreted in light of specification clearly provides this limitation. However, Applicant amends the claims as set forth above to specifically recite such. Applicant submits that no new issues have been added since claim 3, which recites "fidelity," has already been examined.

Go, Tsap, Atsumi, Fall, Ransford and Board do not teach or suggest that the "data compression technique automatically adjusts between high fidelity and low fidelity based on said rate of change of said variable" for the many reasons set forth in the Response filed 23 October 2009. Newly cited Shimoda discloses a method for analyzing defects detected in the production process of an
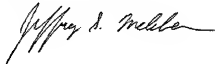
electronic circuit pattern. See paragraph [0008]. Shimoda also does not disclose automatically adjusting between high and low fidelity based on the rate of change of a selected variable. Thus, Shimoda does not make up the deficiencies of Go either alone or in any combination with the secondary references.

One of the main advantages of the claimed invention is that it allows the finite element analysis solution to take place in high fidelity on the most significant geometric locations and at the most significant points in time, while simultaneously reducing fidelity elsewhere in the model. See page 9, lines 15-20 of the present specification. This advantage is not disclosed in the cited prior art.

In view of the many differences between the claimed invention and the theoretical combination of references and the advantages of the claimed invention, withdrawal of the Section 102 and 103 rejections is respectfully requested.

In view of all of the rejections of record having been addressed, Applicants submit that the present application is in condition for allowance and Notice that effect is respectfully requested.

Respectfully submitted,

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